UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,744	01/18/2002	John W. Rapp	1934-1-5	3267

7590   10/13/2009

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ART UNIT	PAPER NUMBER
2451	

MAIL DATE	DELIVERY MODE
10/13/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/052,744	RAPP ET AL.
	Examiner	Art Unit	
	KAREN C. TANG	2451	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>12 June 2009</u>.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>2-22 and 29-37</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>2-22, 29-37</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

-   Claims 2-22, 29-37 are presented for further examination.

-   Due to further consideration, the previous office action is now withdrawn due to a new

    ground of rejection.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 06/12/09 have been fully considered but they are not

persuasive.

<u>35 U.S.C 112 Rejection 1st paragraph</u>

Applicant asserts limitations "the signal database storing interface communication

protocol configuration information" or "retrieving communication protocol interface

configuration information" are supported by the specification by citing portions of the

specification pages 4, Lines 6-14, page 13, Lines 23-31 and page 8, Lines 10-16 of the

specification.

Examiner disagrees:

Page 5, Lines 6-14 of the specification does demonstrates that "a module" may retrieve

configuration information from the signal database, and does demonstrates that the signal

database may stores contents that defines/describe another module, but fails to disclosing that the

signal database "STORING" interface communication "PROTOCOL" configuration

information.

Pages 13, Lines 23-31, Page 14, Lines 1-3 of the specification does demonstrates that a

signal database stores parameters such as executable files particular configuration information,

one or more location identifiers, a communication interface definition, one or more interrupt

definition or storage elements identification description, signal definition, an event identifier and other information such as manufacturer name and model number but fails to disclose that the signal database "STORING" interface communication "PROTOCOL" configuration.

Pages 8, Lines 10-16 of the specification disclosing a subsystem may comprises various elements direct toward various signals in certain environments and does mentions that the signals may be analog, digital, serial or of other types and in accordance with the communication formats and or protocol supported. However, no where within the passage directly stating the signal database "STORING" interface communication "PROTOCOL" configuration information.

Although Applicant asserts

"…it is clear that the claim language interface communication protocol configuration information is "intended to generically cover the information stored in the signal database. (see Page 11 of the response)"

it is still not clear how the signal database would store the "interface communication protocol configuration information" if not explicitly stating in the specification.

Therefore, the rejection is maintained.

For examining purpose, and due to applicant's assertion:

"…it is clear that the claim language interface communication protocol configuration information is "intended to generically cover the information stored in the signal database. (see Page 11 of the response)"

It would have been obvious for the signal database stores interface communication protocol configuration information.

Applicant argues that the cited art of records do not disclose or suggest the following limitations:

"a self-configuring interface system includes a configuration module coupled to retrieve communication protocol interface information from the signal database"

Examiner disagrees.

Krovoshein disclosed the alleged missing limitation in Col 10, Lines 25-27, Col 21, Lines 24-61 and Col 22, Lines 20-34)

If applicant intends to distinguish the content of a signal database in the present invention from the signal database of the cited record, Applicant would required to put the distinction within the claim language. Merely relies on features of the specification that is not within the claim limitations would not distinct the features from the cited art of records. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Specification

Claims 2-22, 29-37 are objected to because according to MPEP 608.01, antecedent basis for the terms appearing in the claims, while an applicant is not limited to the nomenclature used in the application as filed, he or she should make appropriate amendment of the specification whenever this nomenclature is departed from by amendment of the claims so as to have clear support or antecedent basis in the specification for the new terms appearing in the claims. Applicant will be required to make appropriate amendment to the description to provide clear

support or antecedent basis for the terms appearing in the claims provided no new matter is

introduced. The terms "a hardware subsystem", "a self-configuring application service system",

"interface communications protocol information" and "a self-configuring interface system" are

lacking clear support or antecedent basis in the description of the specification. See 37

CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
requirements of this title.

Claims 29-37 are rejected under 35 U.S.C. 101 because according to par 0036 and par

0018 of the specification that the limitation in Claim 29 does not appear to tied to another

statutory class or transform underlying subject matter to a different state or thing, thus, the

method/process claim does not direct to statutory subject matter.

Correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making
and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
contemplated by the inventor of carrying out his invention.

Claims 2-22, 29-37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply

with the written description requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to reasonably convey to one skilled in the relevant

art that the inventor(s), at the time the application was filed, had possession of the claimed

invention.

There are no supports within the specification stating that "the signal database storing

interface communications protocol configuration information" AND "retrieving communication

protocol interface configuration information that…"

Correction is required.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 recites the limitation "the application service system" in Lines 4. There is

insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the group of a sensing operation" in Lines 3,. There is

insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the application service system" in Lines 16. There is

insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the interface system" in Line 1. There is insufficient

antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the interface system" in Line 1. There is insufficient

antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the interface system" in Line 1-2. There is insufficient

antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the application service system" in Line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "the event code" in Line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the application service system" in Line 15 and 20. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the application service system" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the interface system" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the interface system" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the application service system" in Line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the interface system" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the interface system" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the application service system" in Line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "the interface system" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "the interface system" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites the limitation "the interface system" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites the limitation "the application service system" in Line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the interface system" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the application service system" in Line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 29 recites the limitation "the group" in Line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 29 recites the limitation "the step" in Line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 29 recites the limitation "the interface" in Line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 32 recites the limitation "the step" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 32 recites the limitation "a set of electrical signals" and "a set of event code" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 33 recites the limitation "the step" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 33 recites the limitation "the interface" in Line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 33 recites the limitation "the set of electrical signals" in Line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 34 recites the limitation "the step" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 35 recites the limitation "the step" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 35 recites the limitation "the set of electrical signals" in Line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 35 recites the limitation "the interface system" in Line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 35 recites the limitation "the set of event codes" in Line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 36 recites the limitation "the step" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 37 recites the limitation "the hardware interface" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-22, 29-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "a configuration module" in Lines 8-9 and Lines 18. It is not certain that whether or not a configuration module in Lines 8-9 and Lines 18 are refer to the same module.

Claim 12 recites the limitation "a configuration module" in Line 9 and Lines 21. It is not certain that whether or not a configuration module in Line 9 and Lines 21 are refer to the same module.

Claim 17 recites the limitation "an event code" in Line 3.

Claim 18 recites the limitation "an event code" in Line 4.

Claim 19 recites the limitation "an electrical signal" in Line 4.

Claim 19 recites the limitation "an electrical signal" in Line 4.

Claim 20 recites the limitation "an electrical signal" in Line 5 and Lines 6 and limitation of "event code" in Lines 7.

Claim 21 recites the limitation "an electrical signal" in Line 5 and Lines 6 and limitation of "event code" in Lines 7.

Claim 22 recites the limitation "an electrical signal" in Line 5 and Lines 6 and limitation of "event code" in Lines 7.

Claim 29 recites the limitation "the software object" in Line 13.

Claim 32 recites the limitation "those electronic signals" in Line 3.

Claim 34 recites the limitation "a set of electrical signals" in Line 2 an limitation of "those electrical signals event code" in Lines 3..

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 2-22, 29-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Moyne (US 5,469,361) in view of Krivoshein et al hereinafter Krovoshein (US 5,980,078).

1.   Referring to Claim 5, Moyne discloses a system (refer to Title) comprising:

a hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) that includes at

least one component (equipment controllers 13a-13s) adapted to carry an electrical signal

(commands, refer to Col 4, Lines 50-67) associated with one from the group of a sensing

operation and a control operation (refer to Col 5, Lines 25-55);

an application database (22, refer to Col 6, Lines 1-10) storing application service

configuration information (refer to Col 8, Lines 60-67 and Col 9, Lines 50-67 and Col 11, Lines

40-55) that corresponds to a manner of processing information associated with the electrical

signal (message, refer to Col 6, lines 1-5); and

a self configuring application services system (refer to Col 5, Lines 15-25) comprising a

configuration module (Main program module 21, refer to Col 7, Lines 60-67) coupled to the

hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) and coupled to

retrieve application service configuration information from the application database (refer to Col

8, Lines 1-15), the self-configuring application service system operable itself for communication with the hardware subsystem using the application service configuration information, this configuration including associating an event code with the electrical signal (refer to Col 5, Lines 55-67, Col 6, Lines 1-17, 29-40 and Col 17, Lines 50-67, when receiving messages/stimuli, then the application service system will invoke a proper sequence such as determined type of routine to call as an result of the unique action to take. The routines are the event code, and the stimulis and routine calls are the electronic signals).

Although Moyne disclosed the invention substantially as claimed, Moyne is silent regarding a signal database storing interface communication protocol configuration information to a manner of manage the communication between hardware subsystem and application service system and self configuring interface system that comprises a configuration module coupled to retrieve interface configuration information from the signal database.

Krovoshein, in an analogous art disclosed a signal database storing interface communication protocol configuration information to a manner of manage the communication between hardware subsystem and application service system and self configuring interface system that comprises a configuration module coupled to retrieve interface configuration information from the signal database (refer to Col 10, Lines 25-27, Col 21, Lines 24-61 and Col 22, Lines 20-34).

Hence, providing features disclosed by Krovoshein, would be desired for users to implement because it provides the ability to support automatic sensing of devices.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Moyne by including the features which can automatic sensing of devices and provides flexible and reliable configuration ways to configure a device.

2.   Referring to Claim 2, Moyne discloses the application service configuration information

references a software object for processing information associated with the electrical signal, and

the application service system further comprises the software object (refer to Col 13, Lines 10-

67 and Col 14, Lines 1-50)

3.   Referring to Claim 3, Moyne discloses the object database storing a version of the

software object (database stores the newest updated parameters/object, refer to Col 14, Lines 8-

50).

4.   Referring to Claim 4, Moyne discloses wherein the object database forms a portion of an

Object Database Management System (refer to Col 13, Lines 45-55)

5.   Referring to Claim 6, Moyne discloses wherein said interface configuration information

further references a software object that corresponds to a manner of processing information

associated with the electrical signal (information that parsed from the message which can called

up the software routine that can configure the controller, refer to Col 5, Lines 15-67 and Col 6,

Lines 1-67).

6.   Referring to Claim 7, Moyne discloses wherein the interface system further comprises the

software object (refer to Col 3, Lines 1-15).

7.   Referring to Claim 8, Moyne discloses wherein an object database storing a version of

the software object (database stores the newest updated parameters/object, refer to Col 14, Lines

8-50).

8.   Referring to Claim 9, Moyne discloses wherein the object database forms a portion of an

Object Database Management System (refer to Col 13, Lines 45-55)

9.   Referring to Claim 10, Moyne discloses wherein the interface system communications

with the hardware subsystem in accordance with the electrical signal, and communications with

the appliance services system in accordance with an event code that corresponds to the electrical

signal (refer Col 5, Lines 64-Col 6, Lines 15, and Col 6, Lines 55-61 and Col 7, Lines 65 and Col

8, Lines 8).

10.   Referring to Claim 11, Moyne discloses wherein the interface system communicates with

the hardware subsystem in accordance with the electrical signal, and communicates with the

software object and the application service system in accordance with an event code that

corresponds to the electrical signal (refer to Col 5, Lines 64- Col 6, Lines 55-61, Col 7, Lines 65

to Col 8, Lines 8, and Col 5, Lines 25-55).

11.   Referring to Claim 12, Moyne discloses

a hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) that includes a set

of components adapted to carry electrical signal (commands, refer to Col 4, Lines 50-67), each

electrical signal associated with one from the group of a sensing operation and a control

operation (refer to Col 5, Lines 25-55);

an application database (22, refer to Col 6, Lines 1-10) referencing a first software object

(Message, refer to Col 15, Lines 60-67) that corresponds to a manner of processing information

associated with an electrical signal (message, refer to Col 6, lines 1-5, and Col 14, Lines 50-67

and Col 15);

a self-configuring application services system (refer to Col 5, Lines 15-25) comprising:

a configuration module (Main program module 21, refer to Col 7, Lines 60-67) coupled to the

hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) and coupled to

retrieve application service configuration information from the application database (refer to Col

8, Lines 1-15); and

the first software object (Message, refer to Col 15, Lines 60-67);

a self- configuring interface system (refer to Col 5, Lines 15-25) coupled to the hardware

subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) and the application services

system (cell controller system, refer to Col 5, Lines 22-50) comprising:

a configuration module (Main program module 21, refer to Col 7, Lines 60-67) coupled to

retrieve interface configuration information from the signal database (refer to Col 8, Lines 1-15);

and

the second software object (Invocation, refer to Col 15, Lines 60-67).

Although Moyne disclosed the invention substantially as claimed, Moyne is silent regarding a

signal database storing interface communication protocol configuration information to a manner

of manage the communication between hardware subsystem and application service system and

self configuring interface system that comprises a configuration module coupled to retrieve

interface configuration information from the signal database.

Krovoshein, in an analogous art disclosed a signal database storing interface communication

protocol configuration information to a manner of manage the communication between hardware

subsystem and application service system and self configuring interface system that comprises a

configuration module coupled to retrieve interface configuration information from the signal

database (refer to Col 10, Lines 25-27, Col 21, Lines 24-61 and Col 22, Lines 20-34).

Hence, providing features disclosed by Krovoshein, would be desired for users to implement

because it provides the ability to support automatic sensing of devices.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the

art to modify the system of Moyne by including the features which can automatic sensing of

devices and provides flexible and reliable configuration ways to configure a device.

12.   Referring to Claim 13, Moyne discloses comprising an object database (database 22,

refer to Col 13, Lines 40-50, Col 8, Lines 15-67, and Col 16, Lines 1-15) storing one from the

group of the first software object (Entity, Message, refer to Col 15, Lines 65-67) and the second

software object (Entity, Invocation, refer to Col 15, Lines 65-67).

13.   Referring to Claim 14, Moyne discloses wherein the object database forms a portion of

an Object Database Management System (refer to Col 13, Lines 45-55)

14.   Referring to Claim 15, Moyne discloses the network coupled to the application service system and the interface system (refer to Col 4, Lines 25-55 and Col 3, Lines 1-15, and Col 5, Lines 35-55).

15.   Referring to Claim 16, Moyne discloses wherein the network comprises one from the group of a Local Area Network, a Wide Area network, and the Internet (Local area network, refer to Col 4, Lines 65-67)

16.   Referring to Claim 17, Moyne discloses wherein the interface system communications with the hardware subsystem in accordance with the electrical signal, and communications with the appliance services system in accordance with an event code that corresponds to the electrical signal (refer Col 5, Lines 64-Col 6, Lines 15, and Col 6, Lines 55-61 and Col 7, Lines 65 and Col 8, Lines 8).

17.   Referring to Claim 18, Moyne discloses wherein the interface system communicates with the hardware subsystem in accordance with the electrical signal, and communicates with the software object and the application service system in accordance with an event code that corresponds to the electrical signal (refer to Col 5, Lines 64- Col 6, Lines 55-61, Col 7, Lines 65 to Col 8, Lines 8, and Col 5, Lines 25-55).

18.   Referring to Claim 19, Moyne discloses wherein the interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module

comprising a storage element for storing a hardware signal corresponding to an electrical signal

(refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-61, and Col 7, Lines 65 - Col 8, Lines

8);

19.   Referring to Claim 20, Moyne discloses wherein the interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module

comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event code

(refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-61, and Col 7, Lines 65 - Col 8, Lines

8).

20.   Referring to Claim 21, Moyne discloses wherein the interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module

comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event code

(refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-61, and Col 7, Lines 65 - Col 8, Lines

8);

an inter-process communication module coupled to manage event-based communication with the

application services system (refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-61, and Col

7, Lines 65 - Col 8, Lines 8).

19. Referring to Claim 22, Moyne discloses wherein the interface system further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module

comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event

code; and

an interprocess communication module coupled to manage event-based communication with the

application services system and the second software object (refer to Col 5, Lines 54-Col 6, Lines

15, Col 6, Lines 55-61, and Col 7, Lines 65 - Col 8, Lines 8, Examiner interprets the second

software object as "Innovation" entity, refer to Col 15, Lines 65-67).

21.   Referring to Claim 29, Moyne discloses n a system (refer to Title) comprising a hardware

subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) that includes a set of

components adapted to carry electrical signals (commands, refer to Col 4, Lines 50-67), each

electrical signal associated with one from the group of a sensing operation and a control

operation (refer to Col 5, Lines 25-55), a method for processing an electrical signal comprising

the step of:

retrieving application service configuration information that references a software object that

includes program instructions directed toward processing the electrical signal (message parser,

which retrieve relevant information from the electrical signal for the program instruction, refer to

Col 5, Lines 55-67);

retrieving a software object in accordance with the application service configuration information

(function, refer to Col 6, Lines 15-67 and Col 7, Lines 1-20, and Col 9, Lines 20-50);

automatically generating a hardware interface (database information influence how the controller's action, which "generate" the "new" controller, that perform different action, Col 11, Lines 5-55, via interface, refer to Col 11, Lines 55-67) for managing communication between the software object (database information, refer to refer to Col 11, Lines 1-5) and the hardware subsystem in accordance with the interface

Although Moyne disclosed the invention substantially as claimed, Moyne is silent regarding retrieving communication protocol interface configuration information that corresponds to the hardware subsystem and which associates a second set of software objects with at least one electric signal.

Krovoshein, in an analogous art disclosed retrieving communication protocol interface configuration information that corresponds to the hardware subsystem and which associates a second set of software objects with at least one electric signal (refer to Col 10, Lines 25-27, Col 21, Lines 24-61 and Col 22, Lines 20-34).

Hence, providing features disclosed by Krovoshein, would be desired for users to implement because it provides the ability to support automatic sensing of devices.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Moyne by including the features which can automatic sensing of devices and provides flexible and reliable configuration ways to configure a device.

22.   Referring to Claim 30, Moyne discloses comprising an object database (database 22, refer to Col 13, Lines 40-50, Col 8, Lines 15-67, and Col 16, Lines 1-15) storing one from the group

of the first software object (Entity, Message, refer to Col 15, Lines 65-67) and the second

software object (Entity, Invocation, refer to Col 15, Lines 65-67).

23.   Referring to Claim 31, Moyne discloses wherein the object database forms a portion of

an Object Database Management System (refer to Col 13, Lines 45-55)

24.   Referring to Claim 32, Moyne discloses wherein a mapping between a set of electrical

signals and a set of event codes for those electrical signals associated with software objects

within the first set of software object (refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-

61, and Col 7, Lines 65-Col 8, Lines 5, and Col 13, Lines 60-67 and Col 14, Lines 1-15:

Examiner interprets the first set of the software object is Message entity, refer to Col 15, Lines

65-67)

25.   Referring to Claim 33, Moyne discloses: managing communication between the hardware

subsystem and the interface system in accordance with the set of electrical signal (refer to Col 4,

Lines 20-67, Col 5, Lines 1-15, Lines 55-67, and Col 6); and

managing communication between the interface system and the first set of software objects in

accordance with the set of event codes ("Message entity", refer to Col 14, Lines 50-67, Col 15 -

16).

26.   Referring to Claim 34, Moyne discloses wherein a mapping between a set of electrical

signals and a set of event codes for those electrical signals associated with software objects

within the second set of software object (refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-61, and Col 7, Lines 65-Col 8, Lines 5, and Col 13, Lines 60-67 and Col 14, Lines 1-15: Examiner interprets the first set of the software object is Invocation entity, refer to Col 15, Lines 65-67).

27.   Referring to Claim 35, Moyne discloses: managing communication between the hardware subsystem and the interface system in accordance with the set of electrical signal (refer to Col 4, Lines 20-67, Col 5, Lines 1-15, Lines 55-67, and Col 6); and

managing communication between the interface system and the first set of software objects and the second set of software objects in accordance with the set of event codes (event codes, as the routine codes, retrieve the routine codes based on the entities within the messages, which are the sets of the software objects, the refer to Col 15, Col 16, Col 17, and Col 18).

28.   Referring to Claim 36, Moyne discloses executing program instruction associated with the first set of software objects within a first computer system (parent unit, refer to Col 5, Lines 1-15, and Col 3, Lines 1-15, Col 5); and executing program instructions associated with the second set of software objects within a second computer system (the message is associated with the program instruction, which also influence the child unit/second computer setting, refer to Col 5 and Col 6).

29.   Referring to Claim 37. Moyne discloses the second computer system (children unit, refer to Col 4, Lines 50-67, and Col 5, Lines 1-15) includes the hardware interface.

Conclusion

Examiner's Notes: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-F 7 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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(toll-free).

/Karen C Tang/

Patent Examiner, Art Unit 2451